REMARKS

Claims 56-75 are pending in this case. By this Amendment, applicants have canceled claims 71-75 without prejudice or disclaimer, and amended claims 56 and 63. Accordingly, upon entry of this Amendment, claims 56-70 as amended will be pending and under examination.

Applicants maintain that the amendments to claims 56 and 63 do not raise an issue of new matter. Support for the amendments to the claims can be found in the previous version of the claims.

Applicants maintain that the amendments to the specification do not raise an issue of new matter. Applicants have amended the specification to refer to the continuing data for the subject application that was claimed when the subject application was filed. Applicants have also amended the specification to indicate that APPLIED BIOSYSTEMS® is a registered trademark, to furnish ATCC deposit information, and to further clarify which sequences in Figure 2 correspond to which Sequence Listing ID NOs. Finally, applicants have requested that the Sequence Listing that applicants filed on April 29, 2002 be entered as the Sequence Listing for the subject application.

Accordingly, applicants respectfully request that the Amendment be entered.

Sequence Listing Compliance

On page 3 of the Office Action, the Examiner indicated that the application is not in compliance with the requirements for Sequence Listings for the reasons set forth on the Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures, which was enclosed with the Office Action. A copy of the Notice is attached hereto as **Exhibit 1**.

Applicants have hereinabove amended the subject application to enter the Sequence Listing that applicants filed with their April 29, 2002 Amendment. The Sequence Listing in the subject application is the same as in parent application U.S.

Patent Application No. 08/595,553, filed February 1, 1996, now U.S. Patent No. 6,391,579, issued May 21, 2002.

Further to 37 C.F.R. §1.821(e), applicants request that the computer readable form (CRF) of the Sequence Listing submitted in the above-identified parent application be used as the computer readable form of the Sequence Listing for the subject application.

In accordance with 37 C.F.R. §§1.821(e)-(g), the Sequence Listing contains no new matter, and the Sequence Listing contents of the paper copy of the Sequence Listing, for which entry is requested hereinabove, and the computer readable form of the Sequence Listing as filed in the parent application are the same.

Applicants have also hereinabove amended the specification to further clarify which sequences in Figure 2 correspond to which SEQ ID NOs.

Accordingly, applicants maintain that the subject application is in compliance with the requirements for Sequence Listings set forth in 37 C.F.R. §§1.821-1.825 and respectfully request that this objection be withdrawn.

Objection to the Drawings

On page 2 of the Office Action, the Examiner objected to Figure 2 because it does not label the sequences in the figure with SEQ ID NOs as described in the specification. Applicants have hereinabove amended the specification to further clarify which sequences in Figure 2 correspond to which SEQ ID NOs. Applicants maintain that it is clear that the nucleotide sequence shown in Figure 2 is the nucleotide sequence set forth in SEQ ID NO:1 and that the amino acid sequence shown in Figure 2 is the amino acid sequence set forth in SEQ ID NO:2. Applicants note that Figure 2 in the subject application is identical to Figure 2 in the parent of the subject application, now U.S. Patent 6,391,579. Applicants cannot find any requirement, including 37 C.F.R. §1.83(a) and MPEP §608.02(d) referred to by the Examiner, that SEQ ID NO identifiers appear

both on a Figure as well as in the specification. In addition, applicants believe that it would add confusion, rather than clarity, to attempt to put SEQ ID NOs on Figure 2 to indicate that the nucleotide sequence corresponds to SEQ ID NO:1 and the amino acid sequence corresponds to SEQ ID NO:2. Finally, applicants have hereinabove amended the claims to refer only to SEQ ID NOs and not in addition to Figure 2. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this objection to the Figures.

Objections to the Specification

On page 2 of the Office Action, the Examiner indicated that "Applied Biosystems" on page 11, lines 28-29 is a trademark and as such should be capitalized and accompanied by the generic terminology. Applicants have hereinabove amended the specification to recite "APPLIED BIOSYSTEMS®..." Applicants note that the specification indicates that the APPLIED BIOSYSTEMS® Model 392 DNA/RNA synthesizer is an example of a commercially available oligonucleotide synthesizer. Applicants respectfully request that this objection be withdrawn.

On page 3 of the Office Action, the Examiner indicated that the specification must be amended to incorporate the ATCC Accession No. on page 20, line 24. Applicants have hereinabove amended the specification to update the ATCC deposit information. A copy of the ATCC Deposit Receipt is attached hereto as **Exhibit 2**. Accordingly, applicants respectfully request that this objection be withdrawn.

Rejections under 35 U.S.C. §112, Second Paragraph

On page 4 of the Office Action, the Examiner rejected claims 56-62 under 35 U.S.C. §112, second paragraph, as indefinite because the detecting step in claim 56 is confusing. The Examiner stated that it is unclear as to how the expression of the mammalian sodium/iodide symporter is detected and that amending the claims to

incorporate a detecting step would obviate the rejection.

Applicants thank the Examiner for the Examiner's recommendation. Applicants have hereinabove amended claim 56 to recite "wherein detecting hybridization of the nucleic acid probe to the nucleotide sequence indicates that the mammalian sodium/iodide symporter is expressed in the mammalian tissue." Accordingly, applicants respectfully request that this ground of rejection be withdrawn.

The Examiner rejected claims 63-70 under 35 U.S.C. §112, second paragraph, as indefinite because the detecting step in claim 63 is vague. The Examiner stated that it is unclear as to how the binding of the antibody to mammalian sodium/iodide symporter is quantified or determined and that amending the claims to incorporate a detecting step would obviate the rejection.

Applicants thank the Examiner for the Examiner's recommendation. Applicants have herein above amended claim 63 to recite "wherein detecting binding of the antibody to the mammalian sodium/iodide symporter indicates that the mammalian sodium/iodide symporter is present in the sample." Accordingly, applicants respectfully request that this ground of rejection be withdrawn.

The Examiner rejected claims 71-75 under 35 U.S.C. §112, second paragraph, as indefinite because the detecting step in claim 71 is vague. Applicants have hereinabove canceled claims 71-75 thereby rendering this rejection moot.

On page 5 of the Office Action, the Examiner stated that the phrase "Figure 2 (SEQ ID NO:1)" renders claim 56 indefinite because it is unclear as to whether Figure 2 encompasses all or a portion of SEQ ID NO:1. Applicants have hereinabove amended claim 2 to delete reference to Figure 2 and to recite "the nucleotide sequence set forth in SEQ ID NO:1...". Accordingly, applicants respectfully request that this ground of

CONCLUSION

In view of the amendments and remarks made hereinabove, applicants respectfully request that the Examiner reconsider and withdraw the objections and rejections set forth in the March 12, 2003 Office Action and earnestly solicits allowance of the claims under examination, namely claims 56-70.

No fee, other than the enclosed $180.00 fee for submitting an Information Disclosure Statement, is deemed necessary in connection with the filing of this response. However, if any additional fee is required to preserve the pending of the subject application, authorization is hereby given to charge any such fee to Deposit Account No. 01-1785.

Respectfully submitted,

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Dated: New York, New York
June 3, 2003

By _____
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UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Offic
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
09/995,007	11/26/01	Carrasco	967001/708

DATE MAILED:

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821–1.825 for the following reason(s):

☑ 1. This application fails to comply with the requirements of 37 CFR 1.821–1.825.

☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 CFR 1.821(c).

☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).

☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked–up copy of the "Raw Sequence Listing."

☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).

☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e).

☑ 7. OTHER: The application contains nucleotide sequence which lack SEQ ID NO identifiers; thus, application fails to comply

APPLICANT MUST PROVIDE:

☑ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing."

☑ An initial or substitute paper copy of the "Sequence Listing," as well as an amendment directing its entry into the specification.

☑ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b) or 1.825(d).

FOR QUESTIONS REGARDING COMPLIANCE WITH THESE REQUIREMENTS, PLEASE CONTACT:

☑ For Rules Interpretation, call (703) 308–1123.

☑ For CRF submission help, call (703) 308–4212.

☑ For PatentIn software help, call (703) 308–6856.

Customer Service Center
Initial Patent Examination Division (703) 308–1202

American Type Culture Collection

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BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICROORGANISMS FOR THE PURPOSES OF PATENT PROCEDURE

INTERNATIONAL FORM

RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT ISSUED PURSUANT TO RULE 7.3 AND VIABILITY STATEMENT ISSUED PURSUANT TO RULE 10.2

To: (Name and Address of Depositor or Attorney)

Albert Einstein College of Medicine of Yeshiva University
Attn: Ge Dai, Orlie Levy, Nancy Carrasco
Dept. of Molecular Pharmacology
AECOM
1300 Morris Park Avenue
Bronx, NY 10461

Deposited on Behalf of: Albert Einstein College of Medicine of Yeshiva University

Identification Reference by Depositor:	**ATCC Designation**
Plasmid pNIS	97431

The deposit was accompanied by: __ a scientific description X a proposed taxonomic description indicated above.

The deposit was received February 1, 1996 by this International Depository Authority and has been accepted.

AT YOUR REQUEST:

X We will inform you of requests for the strain for 30 years.

The strain will be made available if a patent office signatory to the Budapest Treaty certifies one's right to receive, or if a U.S. Patent is issued citing the strain, and ATCC is instructed by the United States Patent & Trademark Office or the depositor to release said strain.

If the culture should die or be destroyed during the effective term of the deposit, it shall be your responsibility to replace it with living culture of the same.

The strain will be maintained for a period of at least 30 years from date of deposit, or five years after the most recent request for a sample, whichever is longer. The United States and many other countries are signatory to the Budapest Treaty.

The viability of the culture cited above was tested February 8, 1996. On that date, the culture was viable.

International Depository Authority: American Type Culture Collection, Rockville, Md. 20852 USA

Signature of person having authority to represent ATCC:

Barbara M. Hailey

Barbara M. Hailey, Administrator, Patent Depository

Date: February 9, 1996

cc: Craig J. Arnold, Esq. (File: 96700/393)

HP4.9